

Preliminary Amendment

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Applicant(s): MUNN et al.

Serial No. 10/780,797

Filed: February 17, 2004

For: USE OF INHIBITORS OF INDOLEAMINE-2, 3-DIOXYGENASE IN COMBINATION WITH OTHER THERAPEUTIC MODALITIES

Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the above-identified application:

1. (Currently amended) A method of treating a subject with a cancer or an infection, the method comprising administering to the subject an inhibitor of indoleamine-2,3-dioxygenase in an amount effective to reverse indoleamine-2,3-dioxygenase-mediated immunosuppression, and administering at least one additional therapeutic agent, wherein the administration of the inhibitor of indoleamine-2,3-dioxygenase and the at least one additional therapeutic agent demonstrate therapeutic synergy.
2. (Original) The method of claim 1, wherein the indoleamine-2,3-dioxygenase-mediated immunosuppression is mediated by an antigen presenting cell (APC).
3. (Original) The method of claim 1, wherein at least one additional therapeutic agent is an antineoplastic chemotherapy agent.
4. (Original) The method of claim 3, wherein the antineoplastic chemotherapeutic agent is select from the group consisting of cyclophosphamide, methotrexate, fluorouracil, doxorubicin, vincristine, ifosfamide, cisplatin, gemcytabine, busulfan, ara-C, and combinations thereof.
5. (Original) The method of claim 1, wherein at least one additional therapeutic agent is radiation therapy.
6. (Original) The method of claim 5 wherein the radiation therapy is localized radiation therapy delivered to the tumor.
7. (Original) The method of claim 5 wherein the radiation therapy is total body irradiation.

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8. (Original) The method of claim 1 wherein the inhibitor of indoleamine-2,3-dioxygenase is selected from the group of 1-methyl-tryptophan, β -(3-benzofuranyl)-alanine, β -(3-benzo(b)thienyl)-alanine, and 6-nitro-D-tryptophan.
9. (Original) The method of claim 1 wherein the inhibitor of indoleamine-2,3-dioxygenase is 1-methyl-tryptophan.
10. (Original) The method of claim 1 wherein the inhibitor of indoleamine-2,3-dioxygenase is a D isomer of an inhibitor of indoleamine-2,3-dioxygenase
11. (Original) The method of claim 10 wherein the D isomer of an inhibitor of indoleamine-2,3-dioxygenase is selected from the group of the D isomer of 1-methyl-tryptophan, the D isomer of β -(3-benzofuranyl)-alanine, the D isomer of β -(3-benzo(b)thienyl)-alanine, and the D isomer of 6-nitro-D-tryptophan.
12. (Original) The method of claim 10 wherein the inhibitor of indoleamine-2,3-dioxygenase is the D isomer of 1-methyl-tryptophan.
13. (Original) The method of claim 1, wherein the cancer is selected from the group consisting of melanoma, colon cancer, pancreatic cancer, breast cancer, prostate cancer, lung cancer, leukemia, brain tumors, lymphoma, sarcoma, ovarian cancer, and Kaposi's sarcoma.
14. (Original) The method of claim 1, further comprising bone marrow transplantation or peripheral blood stem cell transplantation.
- 15-18. (Cancel)

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19. (Original) The method of claim 1 wherein at least one additional therapeutic agent is a vaccine.

10-23. (Cancel)

24. (Original) The method of claim 19 wherein the vaccine is a tumor vaccine.

25. (Original) The method of claim 24 wherein the tumor vaccine is a melanoma vaccine.

26. (Original) The method of claim 24 wherein the tumor vaccine comprises genetically modified tumor cells or genetically modified cell lines.

27. (Original) The method of claim 26 wherein the genetically modified tumor cells or genetically modified cell line have been transfected to express granulocyte-macrophage stimulating factor (GM-CSF).

28. (Original) The method of claim 19 wherein the vaccine comprises one or more immunogenic peptides.

29. (Original) The method of claim 24 wherein the tumor vaccine comprises dendritic cells.

30. (Original) The method of claim 1 wherein the additional therapeutic agent is a cytokine.

31. (Original) The method of claim 30 wherein the cytokine is granulocyte-macrophage colony stimulating factor (GM-CSF) or flt3-ligand.

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32. (Original) A method of augmenting the rejection of tumor cells in a subject, the method comprising administering an inhibitor of indoleamine-2,3-dioxygenase and administering at least one antineoplastic chemotherapeutic agent, wherein the rejection of tumor cells obtained by administering both the inhibitor of indoleamine-2,3-dioxygenase and the antineoplastic chemotherapeutic agent is greater than that obtained by administering either the inhibitor of indoleamine-2,3-dioxygenase or the antineoplastic chemotherapeutic agent alone.

33. (Original) A method of treating cancer, the method comprising administering an inhibitor of indoleamine-2,3-dioxygenase and administering at least one antineoplastic chemotherapeutic agent, wherein cancer survival rate observed by administering both the inhibitor of indoleamine-2,3-dioxygenase and the antineoplastic chemotherapeutic agent is greater than the cancer survival rate observed by administering either the inhibitor of indoleamine-2,3-dioxygenase or the antineoplastic chemotherapeutic agent alone.

34. (Original) A method of reducing tumor size or slowing tumor growth, the method comprising administering an inhibitor of indoleamine-2,3-dioxygenase and administering at least one antineoplastic chemotherapeutic agent, wherein the tumor size or tumor growth observed with the administration of both the inhibitor of indoleamine-2,3-dioxygenase and the antineoplastic chemotherapeutic agent is less than the tumor size or tumor growth observed with the administration of either the inhibitor of indoleamine-2,3-dioxygenase or the antineoplastic chemotherapeutic agent alone.

35. (Original) A method of augmenting rejection of tumor cells in a subject, the method comprising administering an inhibitor of indoleamine-2,3-dioxygenase and administering radiation therapy, wherein the rejection of tumor cells wherein the rejection of tumor cells obtained by administering both the inhibitor of indoleamine-2,3-dioxygenase and the radiation therapy is greater than that obtained by administering either the inhibitor of indoleamine-2,3-dioxygenase or the radiation therapy alone.

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36. (Original) A method of treating cancer, the method comprising administering an inhibitor of indoleamine-2,3-dioxygenase and administering radiation therapy, wherein the cancer survival rate observed by administering both the inhibitor of indoleamine-2,3-dioxygenase and radiation therapy is greater than the cancer survival rate observed by administering either the inhibitor of indoleamine-2,3-dioxygenase or radiation therapy alone.

37. (Original) A method of reducing tumor size or tumor growth, the method comprising administering an inhibitor of indoleamine-2,3-dioxygenase and administering radiation therapy, wherein the tumor size or tumor growth observed with the administration of both the inhibitor of indoleamine-2,3-dioxygenase and radiation therapy is less than the tumor size or tumor growth observed with the administration of either the inhibitor of indoleamine-2,3-dioxygenase or radiation therapy alone.

38-43. (Cancel)